

REMARKS

I. Introduction

Claims 1-56 are pending in the present application. In a January 1, 2005, Office Action (herein "Office Action"), Claims 1-56 were rejected. Claims 1-2, 4-6, 8-15, 19-22, 24-26, 28-34, 38-39, 41-42, 44-51, and 55-56 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Publication No. 2002/0097322 to Monroe et al. (hereinafter "Monroe"). Additionally, Claims 3, 7, 23, 27, 40, and 43 were rejected under 35 U.S.C. § 103(a) as obvious over Monroe. Claims 16-18, 35-37, and 52-54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Monroe in view of U.S. Publication No. 2001/0039579 to Trcka et al. (hereinafter "Trcka").

For the following reasons, applicants respectfully submit that the prior art, alone or in combination, fails to teach or suggest the designation of a processing zone for determining variations between a first frame of image data and a second frame of image data as recited in the claims. Prior to discussing more detailed reasons why applicants believe that all of the claims of the present application are allowable over the cited references, a brief description of the present invention and the cited references is presented.

A. Summary of the Present Invention

The present invention is related to a system and method for processing digital images. More particularly, a server obtains digital images from one or more digital capture devices. The user defines zones to exclude specific areas or limit processing to specific areas within the digital captured images. The server then processes the images according to the user defined zones to detect an event, such as movement.

In one example of the present invention, a system and method for processing digital video images is provided through a graphical user interface. A processing server obtains a first frame of image data corresponding to an output from a digital capture device. The processing server displays the first frame of data within a display area in the graphical user interface. The

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processing server obtains a designation of at least one processing zone from the user interface device. Each processing zone corresponds to a specific geometric shape within the display area and includes processing rule data. The processing server displays the processing zone within the display area of the graphical user interface. The processing server then obtains a second frame of image data corresponding to the output from the digital capture device. The processing server determines whether variations occurred between the first and second frames within the at least one processing zone. The processing server determines variations by evaluating differential data corresponding to an adjustable parameter. If the server determines that variations occurred, the processing server processes an event.

Numerous advantages may be realized by the system and method recited in the claims of the present application. In one aspect, the utilization of the processing zones allow for the evaluation of digital capture data while discriminating between desired and undesired data. In another aspect, the processing zones allow for an efficient use of system memory resources. Additional advantages may also be realized within embodiments of the present invention.

B. U.S. Publication No. 2002/0097322 to Monroe et al

Monroe is purportedly directed towards a system for capturing, encoding, and transmitting continuous video from a camera to a display monitor via a network. In accordance with the teachings of Monroe, a display screen includes an illustration of the location of the cameras and an indication of the direction of the camera angle. The monitor includes a display area for displaying selected cameras and for controlling the selection, display and direction of the cameras from a remote location. The display screen can be configured to display one or any combination of cameras. A control panel provided on the primary monitor controls the secondary monitors. Nevertheless, Monroe fails to teach or suggest the designation of a processing zone for determining variations between a first frame of image data and a second frame of image data.

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II. The Claims Distinguished

A. Claims 1, 21, and 38

For purposes of this discussion, independent Claims 1, 21, and 38 will be discussed together because the limitations discussed herein are similar for each claim. Claim 1 reads as follows:

1. A method for processing image data, the method comprising:

obtaining at least one processing zone for processing digital data obtained from one or more digital capture devices, wherein the at least one processing zone corresponds to a specific geometry;

obtaining a first frame of image data corresponding to one of the digital capture devices;

obtaining a second frame of image data corresponding to the digital capture device;

determining whether there is significant change between the first and second frames within the at least one processing zone, wherein the determination of significant change is made by evaluating differential data corresponding to an adjustable parameter; and

processing an event if a significant change is determined.

Claim 21 reads as follows:

21. A system for providing security monitoring, the system comprising:

one or more monitoring locations including at least one monitoring device operable to generate a video image;

a central processing server operable to obtain the digital image and generate a user interface;

at least one monitoring computing device operable to display the user interface and to obtain one or more processing zones corresponding to the image data, wherein the central processing server processes the data according to the user's specified input.

Similarly, Claim 38 reads as follows:

38. In a computer system having a graphic user interface including a display and a user interface device, a method for processing image data, the method comprising:

obtaining a first frame of image data corresponding to an output from a digital capture device;

displaying the first frame of data within a display area in the graphical user interface;

obtaining a designation of at least one processing zone from the user interface device, wherein the processing zone corresponds to a specific geometric shape within the display area and includes processing rule data;

displaying the processing zone within the display area of the graphical user interface;

obtaining a second frame of image data corresponding to the output from the digital capture device;

determining whether there is significant change between the first and second frames within the at least one processing zone, wherein the determination of significant change is made by evaluating differential data corresponding to an adjustable parameter; and

processing an event if a significant change is determined.

As recited above, Claims 1, 21, and 38 are directed to a system and method for processing digital images. Each of the claims recites the designation of at least one processing zone corresponding to a specific geometry for determining variations between a first frame of image data and a second frame of image data. If a variation occurs between the first frame and the second frame within the designated processing zone, the server processes an event. The utilization of the processing zones mitigates the need to evaluate the entire frame of image data. Additionally, the processing zone allows for an efficient use of system memory resources.

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Monroe does not teach the designation of at least one processing zone for determining variations between a first frame of image data and a second frame of image data. Instead, Monroe purportedly teaches a user interface for displaying video from a single camera or multiple cameras. (para. 97). Accordingly, "[t]he video display area of the main user interface may be arranged to display a single video image for a single camera, or may be subdivided by the user into arrays of 4, 9, or 16 smaller video display areas for multiple cameras." (para. 57). Accordingly, Monroe teaches a "video display zone 104" and a "viewing zone 104" that are associated with the user interface. Although Monroe utilizes the term "zones" in describing the interface, these "zones" relate to different functions associated with the display of images, such as a control section, a map section, and an image display section. (para. 97, 99). Monroe in no way teaches the designation of a processing zone within a displayed image for determining variations between a first frame of image data and a second frame of image data, as recited in the claims.

Under Section 102(e), a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (February 2003). Applicants respectfully submit that Monroe fails to expressly or inherently teach, disclose, or suggest each and every element of Claims 1, 21, and 38. As explained above, Monroe fails to disclose or suggest the designation of at least one processing zone for determining variations between a first frame of image data and a second frame of image data. Accordingly, applicants respectfully request withdrawal of the pending rejection under 35 U.S.C. § 102 with regard to Claims 1, 21, and 38.

B. Claims 2-20, 22-37, and 39-56

Dependent Claims 2, 4-6, 8-15, 19-20, 22, 24-26, 28-34, 39, 41-42, 44-51, and 55-56 were rejected under 35 U.S.C. § 102(e) as anticipated by Monroe. Additionally, Claims 3, 7, 23,

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27, 40, and 43 were rejected under 35 U.S.C. § 103(a) as obvious over Monroe. Claims 16-18, 35-37, and 52-54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Monroe in view of Trcka. Because a dependent claim carries each and every limitation of the claim it depends on, the references, either alone or in combination, fail to teach or suggest each of the limitations as discussed above. Applicants further submit that the additional cited references fail to address the deficiencies associated with Monroe. Accordingly, for this reason, applicants respectfully request withdrawal of the rejection of Claims 2-20, 22-37, and 39-56.

CONCLUSION

Based on the above-referenced arguments, applicants respectfully submit that all pending claims of the present application are patentable and allowable over the cited and applied references. Because the cited and applied references fail to teach or suggest the designation of at least one processing zone for determining variations between a first frame of image data and a second frame of image data, applicants respectfully request withdrawal of the rejections of the claims and allowance of the present application.

If any questions remain, applicants request that the Examiner contact the undersigned at the telephone number listed below.

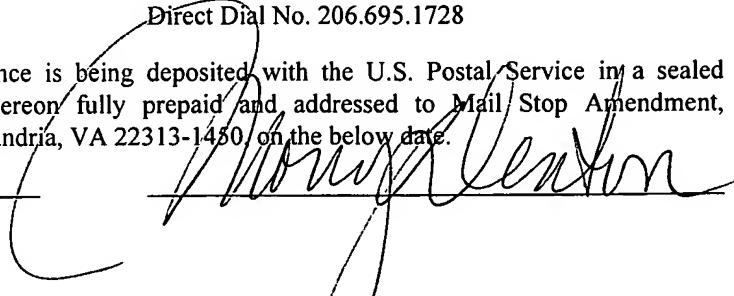
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I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid and addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the below date.

Date: July 14, 2005

MAU/ACF:md


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